Metacognitive interpersonal therapy for personality disorders

Metacognitive Interpersonal Therapy for personality disorders: A case study series

Giancarlo Dimaggio[1] · Giampaolo Salvatore[1] · Angus MacBeth[2] · Paolo Ottavi[1] · Luisa Buonocore[1] · Raffaele Popolo[1,3]

1 Centro di Terapia Metacognitiva Interpersonale, Piazza dei Martiri di Belfiore, 4, 00195 Rome, Italy

2 University of Edinburgh, Edinburgh, Scotland, UK

3 Studi Cognitivi, Milan, Italy

Abstract

Objectives: The study aimed to assess the effectiveness of Metacognitive Interpersonal Therapy (MIT) as a psychological treatment for presentations consistent with non-borderline personality disorders (PD).

Design and Methods

We conducted a single-case series of 3 patients with personality disorders meeting inclusion criteria. Clients received 2 years of weekly individual MIT. Outcomes were assessed every 3 months for the first year at the end of treatment and at 3-months follow-up. Co-primary outcomes were reduction in the number of SCID-II PD criteria met and reduction in self-reported global distress (SCL-90-R GSI). Secondary outcomes were reduction in self-reported interpersonal problems (IIP-32), anxiety (STAI-Y), depression (BDI-II) and emotional dysregulation (DERS). Reliable Change Indices were calculated for all outcomes.

Results

All three patients completed treatment, achieving reliable change at the end of treatment for reduction in total number of personality disorder criteria and in overall symptoms. For secondary outcomes, two patients improved in emotion regulation, one in depression. There was no evidence of reliable change on self-reported anxiety or interpersonal problems. At 3-months post treatment

improvements in overall symptoms and emotional regulation were observed for all patients. Plot analyses of the results showed a trend towards reduction for all outcomes.

Conclusions

MIT is a new manualized treatment for non-borderline PD's. We demonstrate preliminary evidence of acceptability and effectiveness in this understudied population. Future studies are required to establish the effectiveness of MIT in larger PD samples, including patients with lower socio-economic status.

Introduction

The last two decades have seen substantial advances in outcome evaluation of psychotherapies for personality disorders (PD). However, with a few notable exceptions (e.g. Arnevik et al., 2009; Bamelis et al., 2014; Clarke et al., 2013; Kramer et al., 2015; Muran et al., 2005; see Budge et al., 2014), the evidence for effectiveness of psychotherapy for PD is predominantly in relation to borderline PD (Gask, Evans & Kessler, 2013). Therefore, a large proportion of patients diagnosed with other PDs remain in need of specialized effective treatments (Dimaggio, Nicolò, Semerari, & Carcione, 2013) . Furthermore, the evidence for the disruptive impact of PD symptoms is generalized across the PD's – particularly in the case of more severe PD's (Yang, Coid & Tyrer, 2010). Other PDs, (including obsessive-compulsive, avoidant, paranoid, and dependent PD classifications) do not primarily feature emotional dysregulation, like BPD, and thus have different treatment needs. In contrast, the predominant features of these non-Borderline PD' s are emotion overregulation (Lynch & Cheavens, 2008; Lynch et al., 2016), inhibition of affect (Popolo et al., 2014) and avoidance of social contact. Therefore these client's needs differ from those with dysregulated or impulsive PDs, such as BPD or antisocial. . Furthermore, it is also of note that Narcissistic PD, despite sharing aspects of emotion dysregulation with BPD (Maples et al., 2010), may require a different treatment approach, given the presentation of elements of self pathology differing from BPD - including unrelenting perfectionistic standards, distant and aloof interpersonal styles (Ronningstam & Weinberg, 2013) and the elicitation of different countertransference reactions in therapists (Colli et al., 2014).

There is consensus that part of the core pathology of all PD includes a set of maladaptive interpersonal schemas (Arntz & Jacob, 2012; Benjamin, 2003; Clarkin et al., 1999). Maladaptive interpersonal schema typically develop around a basic wish and include a representation of the self, of the others and of their relationships and the affects involved (e.g. Luborsky & Crits-Cristoph, 1998). Schemas underlying the various PDs differ from each, supporting the position that treatment

must be tailored to the prominent schemas. This has corresponding implications for the delivery of evidence-based psychological treatments in non-BPD disorders. For example schemas related to overcontrol characterize paranoid and obsessive-compulsive PD; self-aggrandizing and detached self-soothing have been observed in narcissistic and obsessive-compulsive PDs; relational avoidance has been noted in avoidant PD, while in contrast the impulsive child schema was most typical of BPD (Bamelis et al., 2011; Leobbestaal et al., 2008).

It follows that previous research on BPD cannot be generalized, and that a specialized therapy may be required to target the specific pattern of dysfunction in many non borderline PDs, parrticularly when over-control is prominent in the presentation, rather than emotion dysregulation (Livesley, Dimaggio & Clarkin, 2016).

Evidence suggests that all PDs feature difficulties in what has been termed metacognition (Semerari et al., 2003; 2014) or mentalizing (Fonagy, 1991; Fonagy & Bateman, 2016). These constructs refer to the set of abilities required to make sense of mental states, both of oneself and the others, and in using mentalistic information to solve social problems, manage distress and cope with symptoms (Carcione et al., 2011; Lysaker et al., 2014). These difficulties include: poor awareness of own emotions, the inability to question one's own schema-driven attributions about the self, others and their relationships and deficits in the formation of an integrated and coherent picture of oneself. With regard to others' minds, these patients have problems in grasping what is passing through the others' mind, understanding what they are feeling and why, struggle to give consistent and realistic explanation of the intentions underlying their behaviors, and have difficulties in accepting that we they are not the center of the others' thoughts (Dimaggio & Lysaker, 2010). Though the concepts of metacognition and mentalizing largely overlap (Dimaggio & Lysaker, 2015; Semerari et al., 2007), metacognition does not assume that the dysfunction is related to attachment, unlike mentalizing (Fonagy & Bateman, 2016). Moreover metacognitive approaches specifically target the capacity to use psychological information for purposeful problem

solving (i.e. metacognitive mastery, Carcione et al., 2011) with dysfunction in this area relating to specific profiles of psychopathology.

In summary, the current armamentarium of psychotherapies for PD lacks treatments that target difficulties in metacognition . As regards the issue of addressing abilities to think about thinking, Mentalization Based Treatment (Bateman & Fonagy, 2005) has demonstrated effectiveness for treatment of borderline PD, (Bateman & Fonagy, 2009; Bateman & Fonagy, 2013). However, metacognitive based therapeutic approaches have not been applied to PD outside BPD and antisocial .

Metacognitive Interpersonal Therapy (MIT) was initially devised for a broad range of PDs (Dimaggio et al., 2007). A manualized version have been devised for PD's such as avoidant, dependent, obsessive-compulsive, paranoid, narcissistic, depressive and passive-aggressive and PD NOS either alone in any form of comorbidity (Dimaggio, Salvatore, Fiore et al, 2012; Dimaggio, Montano, Popolo & Salvatore, 2015a). Selected single cases shown that MIT was associated with reductions in both PD severity and symptomatology (Dimaggio, Attinà, Popolo, & Salvatore, 2012; Dimaggio & Lysaker, 2010; Dimaggio et al., 2015b). These case studies form the basis of the empirical case-series evaluation presented here.

Before presenting the case series, we briefly summarize the basic MIT features. We propose that it is a potentially effective treatment for addressing understudied PDs, e.g. obsessive-compulsive and avoidant.

Metacognitive Interpersonal Therapy for Personality Disorders: Procedures.

In MIT the therapist pays moment-by-moment attention to the quality of the therapy relationship and works in order to minimize ruptures and quickly repair them (Dimaggio et al., 2010; Safran & Muran, 2000). Within treatment, therapists try to therapists validate patients' experience and are alert to indications of any negative relational markers. Implicit within this approach is an awareness that the therapist may be contributing to any emergent problems.

MIT does not provide session-by-session instructions. It consists of a set of procedures that help to build an individualized case formulation for patients with the range of PD described earlier. For each patient the therapists first evaluates narrative capacity, the set of maladaptive interpersonal schemas, problems in metacognition and the typical regulatory responses. These evaluations are then used to adapt the case-formulation.

Procedures are grouped in two broader areas: *formulation of functioning* and *change promoting* (Dimaggio et al., 2015a). To develop a shared formulation of functioning, the first step is to elicit detailed autobiographical narratives. Autobiographical episodes need to be specific, including clear space and time boundaries, identifying who was present in the scene and the evolution of interactions with others. Once one or more narratives have been collected, the therapist focuses inquiry on understanding the affects experienced during the episode. This is aimed at overcoming the most basic metacognitive problem - poor emotion awareness, which leads to poor metacognitive. The next step is to promote awareness of psychological cause-effect links (labelled in metacognitive terms as relating variables), such as which specific actions from the other elicited a certain belief; how the belief triggered an affective response; and how that affect led to specific behaviors or maladaptive coping strategies. After identifying the psychological processes which guided patients' action during a given episode, the therapist formulates a first tentative summary, using a Core Conflictual Relationship Theme (Luborsky & Crits-Christoph, 1998) structure and delineating: a) the patients' *wish*, for example, to be accepted, loved, or valued; b) the *response of the other*, for example, rejecting, harshly critical, neglecting or hampering autonomy; and c) the *response of the self to the response of the other*, for example, sadness, depression, anger, guilt, and the associated coping strategies such as withdrawal, fight/flight and so on. A typical formulation sounds like: "So when your partner did not support your request you realized you had a need for recognition. You then felt abandoned and sad as you considered she was not interested in you. In reaction you felt worthless, shut yourself down and become sad and depressed". With the help of this agreed-upon formulation, the therapist invites the patient to collect a series of associated

autobiographical memories that he or she feels resemble to the episode just described. Therefore the therapist paves the ground for exploration and development of an understanding around underlying maladaptive interpersonal schemas. Through collaborative revision of these multiple episodes therapist and patient form a joint formulation of these schemas. Formulation of the schema lays the groundwork for moving into the change-promoting phase of therapy.

C*hange promotion*, includes a first step - the fostering of metacognitive differentiation between fantasy and reality. For example, passing from ideas such as "I am unworthy and the other will reject me and criticize me" to "I tend to think I am unworthy and others will lose interest in me, but this is not necessarily the case and probably this idea is rooted in my personal history". A second step parallels differentiation, - facilitating access to healthy self-aspects such as lovable, capable, worthy, safe and valuable. When the patients access these aspects, the therapist encourages them to practice between sessions new behaviors aimed at fulfilling their innermost wishes. A further step is to promote agency: patients are helped to perceive a sense that they are in control of their life. Once they have identified the inner motives that drive them in work, romantic, friendship and leisure activities, they are encouraged to pursue them. Later steps include forming a more nuanced understanding of the others' mind and promoting an integrated view of the self which is capable to make sense of gaps, lapses, apparent contradictions and including both vulnerabilities, strength, resources and awareness of what has changed through the course of therapy.

In this single-case series we aimed to demonstrate that MIT was an acceptable intervention to patients, evidenced by patient retention in therapy. Predicted primary outcomes were reduction of overall PD criteria and of global suffering. Secondary outcomes were reduction in maladaptive appraisals of interpersonal relationships, reduction in depression and anxiety and achieving better emotion regulation.

Methods

Protocol and design

Patients referred to the Center of Metacognitive Interpersonal Therapy, a private clinic specialized in the treatment for PD, between August 2012 and March 2013 were screened to ascertain eligiblity for participation in the study. Patients meeting inclusion criteria were provided with written information on the study and the key features of MI before consenting to be included in the case study series. Patients paid for therapy as per usual private practice but testing was for free, as this was a function of the research procedure. Beyond assessment, tests were repeated at months 3, 6, 9, 12, 24 and at a 3-months follow-up. The study was approved by the local Ethics Committee.

Inclusion criteria and participants

Inclusion criteria were applied to ensure that included participants presented with a) significant PD pathology; b) symptomatology above a threshold for caseness; whilst also c) no or mininal borderline, histrionic or antisocial traits. Specific inclusion criteria were: presence of any DSM IV TR (Association & Association, 2000) PD among Avoidant, Dependent, Obsessive-Compulsive, Narcissistic, Paranoid, Passive-Aggressive and Depressive in any form of co-occurrence. PD NOS was included as either having 2 sub-threshold disorders among the above listed ones or meeting at least 10 PD criteria at the SCID II interview[1]. Symptom Checklist List Revised (Derogatis, 1992) global severity index (GSI) had to be >0,90. Exclusion criteria were the following: presence of full-blown or sub-threshold borderline, histrionic, antisocial because these PD's present with prominent emotional dysregulation, with BPD and antisocial PD also featuring or impulsivity which were not targeted in the manualized therapy) and schizotypal PD (due to the cognitive problems of this diagnosis, which would require tailoring of therapy to resembling

[1] We included PD NOS as MIT was manualized for individuals presenting with a combination of maladaptive interpersonal schemas and reduced metacognition. These include individuals not meeting criteria for a specific PD but suffering from a combination of traits from different PD. For example, an individual with 3 criteria for Avoidant PD, 2 for Dependent PD, 3 for Obsessive-Compulsive PD and 2 for Paranoid PD is classified as having PD NOS and its dysfunctions are the ones targeted by MIT (Dimaggio et al., 2015a). In this example the individual could be characterized by schemas of avoidance and overcontrol.

therapy for persons with psychosis); presence of DSM-IV TR diagnosis of psychotic disorder or bipolar I disorder; drug and alcohol abuse of misuse requiring specialist treatment, and mental impairment or evidence of organic brain disorder. Of 15 patients who were continuously referred to the Centre (this did not include patients asking for a specific therapist) – 3 met inclusion criteria.

Participants were two men and one woman, all Caucasian. Marco, was 56 years old, diagnosed with Avoidant and Depressive PDs. He worked as a graphic designer, was married and had no children. Giulio was 46 years old, diagnosed with Obsessive-Compulsive PD and PDNOS (sub-threshold narcissistic, passive-aggressive, and depressive PD). He owned a bookstore was married and had a daughter. Michela was 33 years old, diagnosed with PDNOS (Passive-Aggressive PD and overall 16 criteria met). She was a journalist, had a stable relationships with her partner and had a son.

Table 1 about here

Therapists. Two therapists were included in the study. One was one of the creators of MIT, the other had 20 years of clinical experience and 8 years of MIT practice. The team included two other authors of the manual and all the cases were discussed monthly in order to check for fidelity and quality of the treatment and for solving any problematic issue. The 3 patients were randomly assigned to the 2 therapists.

Intervention.

Therapy was conducted using manualized MIT (Dimaggio et al., 2015), and delivered in a private outpatient centre specialized in PD treatment. Therapy lasted for 24 months. Participants had one initial assessment interview, followed by psychological assessment measures. Thereafter, therapy consisted of weekly individual sessions for 21 months, followed by a step-down phase of 3 months with 1 session every 2 weeks. After termination, a three-month follow-up was scheduled.

Only one patient (Michela) received drug therapy (benzodiazepines). This was for a three-month period and administered by a psychiatrist in the clinic.

Instruments

Structured Clinical Interview for DSM-IV Personality Disorders (SCID-II; First, Spitzer, Gibbon, & Williams, 1997). The SCID-II is a structured clinical interview that assesses the full range of PD traits found in DSM IV PD. Internal consistency of traits for each diagnosis in our study ranged from .70 and 0.89 for the majority of PDs, with four PD's having alphas below .60 (Obsessive-Compulsive, Dependent, Schizotypal, and Passive-Aggressive). Interviews were conducted by four clinical psychologists trained in administering the interview. The results of the interview were discussed with the referring clinician and, after treatment was started, with the psychotherapist. Thereafter a final agreed diagnosis was obtained.

Symptom Checklist-90-R (SCL-90-R; Derogatis, 1992). The SCL-90-R is a self-report inventory that was primarily designed to reflect the psychological symptom patterns of psychiatric and medical patients. The SCL-90-R measures nine primary symptom dimensions and generates an estimate of global psychopathology. For the purposes of this study we were interested in the general measure of psychopathology (Global Severity Index -GSI).

Beck Depression Inventory-II (BDI-II; Beck, Steer & Brown, 1996). The BDI-II is a 21-item measure assessing depression over the previous two weeks. Higher scores suggest more depression experienced. Beck, Steer and Brown (1996) reported a mean score of 14.55 for non-patient female university students. One-week test–retest reliability in a mixed gender sample of outpatients was .93. Internal consistency was .79 at pre-test and .85 at post-test. BDI measures two components: affective (e.g. mood) and somatic. The two subscales were moderately correlated at 0.57. The cutoff's used are the following: 0–13 corresponded to minimal depression; 14–19 with mild depression; 20–28 with moderate depression; and 29–63 with severe depression.

State-Trait Anxiety Inventory (form-Y) (Spielberger, Gorsuch & Lushene, 1983). The STAI-Y is a self-report instrument measuring state-anxiety (anxiety about an event) and trait-anxiety (anxiety level as a stable characteristic). All items were rated on a 4-point Likert Scores range from 20 to 80, with higher scores correlating with greater anxiety. Internal consistency is very good for both state anxiety (from .91 to .95) and trait anxiety (from .85 to .90), with a good test-retest reliability indicator of .49 for state anxiety and .82 for trait anxiety (Spielberger, 1989).

Inventory of Interpersonal Problems (IIP-32; Horowitz, Alden, Wiggins, & Pincus, 2000). The IIP-32 is a 32 items self-report instrument measuring distress arising from interpersonal sources. The measure comprises eight subscales in which patients are asked to rate two types of items: a portion of the items refer to behaviours that an individual does too much (e.g., I open up to people too much), whereas the remainder refer to those behaviours that an individual finds too hard to do (e.g., It is hard for me to show affection to people). Respondents are asked to rate how distressing

they find each behaviour. Subscales are labelled domineering, vindictive, cold, socially avoidant, non-assertive, exploitable, overly nurturant and intrusive. The IIP-32 possesses high internal consistency, reliability and validity, and high test–retest reliability (Soldz, Budman, Demby, & Merry, 1995)). Cronbach's alpha estimates for the Italian version of the IIP ranged from 0.79 to 0.86 (Lo Coco, Gullo, Scrima, & Bruno, 2012).

Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). The DERS is a 36-item self-report questionnaire designed to assess difficulties regulating emotions, particularly upsetting ones. Participants were required to indicate how often each item applies to them on a scale ranging from 1 (almost never) to 5 (almost always). Consistent with the original validation, exploratory and confirmatory factor analysis of the Italian version (Giromini, Velotti, de Campora, Bonalume, & Zavattini, 2012) yielded six dimensions: nonacceptance of emotional responses; difficulties engaging in goal-directed behavior when emotionally upset; impulse control difficulties when distressed; inconsistent focus on feelings and lack of emotional awareness; limited access to

context-appropriate emotion regulation strategies perceived as effective; lack of emotional clarity. Greater scores correspond to greater difficulties in emotion regulation. The DERS has good test-retest reliability, good internal consistency, and good construct and predictive validity, as well as good convergent validity (Gratz & Roemer, 2004). The Italian version showed Cronbach's alphas higher than .77 for all subscales.

Statistical Analyses: To estimate clinically relevant changes across treatment, reliable change indices were calculated using the Leeds Reliable Change index calculator (Morley & Dowzer, 2014). Appropriate reference groups were used to generate reliability data for SCID-II (Lobbestael, Leurgans, & Arntz, 2011), SCL-90 (Holi, Marttunen, & Aalberg, 2003), IIP-32 (Horowitz et al., 2000), BDI-II (Beck et al., 1996), STAI-Y (Crawford, Cayley, Lovibond, Wilson, & Hartley, 2011), and DERS (Giromini et al., 2012). We also report descriptive results for baseline characteristics and change processes during treatment. Finally, we include a brief narrative description of patients' perspectives regarding the course of therapy.

Results

Baseline characteristics and change during therapy are reported in Table 1. Below we describe clinical processes through treatment on a patient- by-patient basis.

Table 2 about here

Analyses for reliable change in symptomatology

We tested for reliable change in primary and secondary outcomes using Jacobsen and Truax's (Jacobson & Truax, 1991) criteria for measuring reliable change. All patients demonstrated a reduction in the total number of PD diagnoses on SCID-II, both at 12 and 24 months (RCI=4.48, $p<.05$). In terms of change on the SCL-90 GSI, two out of three patients reported reliable change in

scores at 12-months into treatment, with all three patients showing reliable change at 24 months, and reliable change was observed for all patients at 3-months after end of treatment (RCI=0.31, $p<.05$). With regard to depressive symptoms, 2 of 3 patients showed reliable change for reduction in depressive symptoms at 12 months into treatment and 3-months after the end of treatment (RCI= 9.35, $p<.05$), although gains at 24 months were shown in only 1 patient. For emotion regulation there was a pattern of variation in scores, with only one patient showing reliable change at 12 months, two of three patients showing reliable change at 24 months and all patients reporting reliable change at 3-months (RCI=13.94, $p<.05$), Results for interpersonal problems were more mixed, with one patient demonstrating reliable change at each time point, and two patients showing gains at 24 months of treatment, and at 3months after treatment ended (RCI=15.39, $p<.05$). No patients met criteria for reliable change in anxiety.

At Figure 1 we display graphs of change over time for key symptom and functioning variables. As can be seen, the change in depressive symptomatology occurred mainly in the first 6 months of treatment, with a more steady, stepwise reduction in SCL-90 general scores over the duration of treatment. This is consistent with knowledge that symptom reduction happens early in good outcome therapies, linked to generic factors such as receiving support, trusting the therapist and normalization.

Narrative description of treatment

Overall Marco was satisfied with his progress in therapy. At the beginning he reported intense suffering due to social anxiety, frustration about work, depression and hopelessness. His partner suffered from bipolar disorder and had recurrent suicidal ideation. He was overwhelmed by the burden of care and by feelings of guilt and responsibility. Marco thought he could stay well only if she improved, though that looked almost impossible to him. At work he felt frustrated and left apart and had only marginal connections with colleagues. During therapy it also appeared Marco

felt split between a very negative self-evaluation and an idealized self-image he felt unable to reach. Self-criticism was intense and he treated himself with scorn. With regard to metacognition, Marco had difficulties integrating different aspects of self and other representations. For example he was unaware that he would spend his days near his partner's bed in moments of intense depression (she suffered from severe bipolar disorder). He also had difficulties in differentiating nuances of his belief system. For example, he took his beliefs that there was no hope for the future and that he had failed everything in life as matter of facts. By the end of the therapy Marco reported no symptoms of depression. He was able to look into the future with hope and he had formed a metarepresentational model from which he could question his ideas. Furthermore, Marco was more flexible in his interpretations and acknowledged that he did not necessarily need to stay near his partner, as this was unhelpful to both. We suggest that this flexibility was an indicator of better metacognitive integration. Marco reported that he felt deeply changed and more self-compassionate. In addition, his guilt had receded, and he felt entitled to take care of himself and not only of his partner. We suggest that Marco's therapy outcomes were particularly noteworthy because after 2 year his partner's depression seriously relapsed. At this time Marco himself also had health concerns and had suffered a series of setbacks at work, due to redundancies in the firm he had worked in for 30 years. Marco had to accept downgrading to part-time employment, which he felt humiliating and increased feelings of social rejection. Despite of these problems, Marco retained a stable sense of personal worth and was willing to seek for new opportunities, such as renewing his passion for painting, which he had neglected for decades.

Michela was also satisfied with therapy, both with regard to the therapeutic process and in her relationship with her therapist. She initially asked for therapy in a state of confusion as she was unhappy about her relationship but unable to decide whether to leave her partner. Michela also reported health anxieties and worries about her son. In particular, she suffered from the fixed belief that he could not get along with others and was an outcast. Michela was aware that his behavior was normal but could not reduce her anxiety. Consequently, she did everything she could to have

continuous social contacts with other schoolmates and their parents. She also had issues of self-derogation and felt despised by her partner, which sustained her unstable self-esteem. As regards metacognition, she was almost unable to report a range of feelings other than anxiety. She also tended to dwell on intellectualization. At the outset of therapy, Michela was unable to adopt a critical distance from her catastrophic fantasies, further indicative of poor metacognitive differentiation. She also struggled to take the perspective of others.

At the end of therapy, Michela reported feeling much less anxious about her son and her health concerns were no longer out-of-control. She realized that she was not in love with her husband. As such she recognized that she had to face her fears of being alone and lose the idea of the family she longed for all her life. Michela also recognised that this was in part due to her parent's divorce when she was 6 years old. After the divorce, her father lost contact with her over the years whilst her mother was unsupportive and highly critical of her. Michela stated that therapy had helped her regain control over her life and consolidated her identity and the capacity to stick to her own wishes instead of continuing seeking for help and appreciation from others. She formed a more nuanced theory of the mind of others' and was able to take a decentered stance. For example, she reflected that her husband tended to ignore her or not take care of her because of his own personality characteristics. Michela only complained about therapy termination because she was facing a serious relationship crisis with her husband. . Therefore we suggest that Michela continued to feel anxious about the idea of breaking up and abandoned by the therapist. However, in general her tendency to complain about others as not caring of her had diminished in parallel with her increasing sense of autonomy.

Giulio, 46 years old, had had 4 former episodes of therapy, all of which were ended prematurely due to relational problems with the therapist. At the outset of therapy Giuliohe was almost hopeless about the possibility of being helped after these failures. At assessment he reported that his motivation for attending therapy was due to his generalized anxiety disorder, somatization and health anxiety. He also felt he lost energy and motivation since years. Giulio described himself

as jealous, perfectionistic and angry, as well as dependent from some relevant persons. At the same time he also noted that at times he rebelled against others, particularly his family of origin, because at these times he tended to feel subjugated and constricted. In terms of metacognitive problems Giulio reported intracted theory of mind difficulties - firmly believing that others would humiliate him or hurt him. This difficulty was one of the causes of his frequent arguments with his wife. At times these culminated in physical violence, even in the presence of their 4 year old daughter. Over therapy there were many occasions in which Giulio doubted that the therapist paid enough attention to him. This made him feel angry, however these therapeutic ruptures were used as opportunities for modelling and regular repair, to the point that towards the beginning of the second year he steadily trusted the therapist.

By the end of treatment Giulio reported decreased general anxiety, except for a moderate continuing degree of health anxiety. His interpersonal relationships had greatly improved and he only rarely responded with aggressive reactions. When upset Giulio was no longer dysregulated and had found ways to express disagreement with others, without recourse to arguments or verbal aggression. His relationships with his family of origin had improved dramatically. There was no physical violence between Giulio and his wife in the second year of treatment. At times Giulio reported ongoing feelings of jealousy, but felt that this no longer made him feel the need to control his wife. In addition, his capacity to enjoy life increased and he was more relaxed at work. More information about early therapy process for the three patients can be found in Dimaggio and colleagues (2015a).

Discussion

PDs such as obsessive-compulsive, paranoid, dependent and avoidant presentations have received inadequate attention over the last few years (Dimaggio et al., 2013). There is therefore a pressing need to evaluate outcomes for these disorders. The current single-case series evaluated whether Metacognitive Interpersonal Therapy (Dimaggio et al., 2007; Dimaggio et al., 2012),

specifically manualized for non-borderline PDs (Dimaggio et al., 2015a) was effective and acceptable to participants. Three patients were enrolled in a 2-year individual weekly treatment with a 3 months follow-up. Albeit limited by the sample size, results indicated that the treatment was acceptable to patients with all 3 patients completing treatment, engaging with the therapy, and rating the treatment as consistent with their needs. Therapists were also described as sensitive and able to understand them.

Primary outcomes were reduction in PD pathology (as measured by the number of SCID-II criteria) and overall symptomatology (measured by the SCL-90-R GSI). All three patients obtained reliable clinical change for PD after 1 year and results were sustained at therapy termination. Two patients no longer met diagnostic criteria for PD, while one met criteria for PDNOS (10 criteria met), without meeting criteria for a specific PD. In terms of symptomatology, 2 patients out of 3 reported reliable change after 1 year and all 3 patients reported reliable change at therapy termination. Two patients out of 3 had GSI scores below the cut-off for clinical caseness, whilst one continued to report above threshold distress.

With regards to secondary outcomes, the appraisal of interpersonal relationships did not consistently change over time, with residual problems still remaining at the end of the therapy, which led the patients to require further treatment. This is consistent with the idea that the behavioral manifestations and symptoms of PD are amenable to relatively rapid change, whilst the internalized representations of self and others may be comparatively more resistant to change. As regards emotional dysregulation, one patient needed only 1 year of treatment to significantly improve, whilst all 3 patients reliably changed by point of therapy termination. Specific symptoms of anxiety and depression decreased less consistently, though neither these symptoms were particularly severe (e.g. no suicidal ideation nor self-harm). There is the possibility that additional targeted modules focused on anxiety would increase effectiveness in this domain.

At 3 months follow-up post-therapy all patients had maintained gains in terms of reduction of overall symptoms, and in terms of improved emotion regulation. There were signs that gains

were also maintained for some patients with regard to interpersonal problems and mood symptoms. Taken together this pattern of results suggests that MIT can confer longer-term effectiveness for patients.

Overall results support the idea that MIT can be well accepted and effective for PD other than borderline, in particular Avoidant, Obsessive-Compulsive and PDNOS as represented in this sample. This answers the call from many researchers that outcome studies should focus on a broader range of PDs (Diedrich & Voderholzer, 2015).

Results were particular promising for the main outcome measure, that is reduction in number of PD criteria, and for global symptomatology. Capacities for emotional regulation also improved consistently. We note that at commencement of therapy no patients reported dysregulation as a prominent problem. This was expected, although no specific modules for emotion regulation were used. We propose that MIT aims at improving emotional regulation through promoting metacognitive capacity (see also Bateman & Fonagy, 2004). Firstly, through helping patients to identify and name emotions that they feel cannot control, and then adopt a more flexible stance about the maladaptive interpersonal schemas that trigger negative emotions tending to spiral out of control.

We note that patients still held a degree of problematic ideas about human relationships. This is consistent with knowledge that representations of self and others are parts of personality pathology more resistant to change (Livesley et al., 2016). This is not unsurprising, and is conisistent with earlier findings reporting that, although primary outcomes are generally positive in trials of psychological interventions for patients with PD, post-treatment participants would also continue to report ongoing distress suffering and interpersonal difficulties (Bateman & Fonagy, 2009; McMain et al., 2009).

From a methodological standpoint it is possible that different measures of maladaptive interpersonal schemas would have been more sensitive indices of change in the interpersonal domain. Alternatively, it remains a possibility that therapists did not adequately address the issue.

However, we propose that this is less likely given that the capacity to detach oneself from maladaptive interpersonal schemas and form more benevolent and adaptive representations of self and others is a key focus of MIT. Our hypothesis remains that longer term treatment is needed to address this part of core pathology of PD.

Consistent with the literature on psychotherapy outcomes (e.g. Kopta et al., 1994), the largest incremental changes on all measures occurred between 3 to 12 months into therapy. As with other psychological interventions, initial goals in MIT, are to reduce global distress, instill hope and remoralization and facilitate the individual's sense of agency over interpersonal problems. Over time, patients become more aware of the deep-seated nature of their maladaptive patterns, enabling engagement in more long-term work to make changes in their everyday life. In addition, the final part of any treatment often features a decrease in function due to of issues of separation and therapy termination. Given the case-series nature of the study results did not allow for any generalization. Replication is needed with larger samples with the broader set of PD represented, including other non-Borderline PD presentations such as narcissistic and paranoid and/or presentations. Further longer-term follow-ups are also needed. Given the small sample and the preliminary nature of the study, we intentionally focused on the most relevant outcomes, and we did not assess global functioning. Related to this domain, all three patients had stable relationships and a work, with an acceptable to good socio-economic status. Replication is therefore needed with poorer functioning samples.

Another limitation concerns the lack of evaluation of process variables and mechanisms of change. MIT assumes that therapeutic change in PD is due to a) increase in metacognition, that is the capacity for a more nuanced understanding of mental states and their use for purposeful problem solving (Dimaggio et al., 2007; 2015a; Semerari et al., 2003); b) an enrichment in the representation of self and others, where new and more adaptive cognitive-affective appraisals of human relationship grow and are able to take control over formerly dominant maladaptive patterns; and c) an increase in behaviors aimed at fulfilling basic goals (e.g. attachment, social rank, group

belonging) and, when possible, towards living a life consistent with own preferences and attitudes. As the aims of the current study were to establish feasibility of MIT and provide preliminary data on its effectiveness, we did not address these questions. Therefore, elucidating mechanisms of change in MIT still requires investigation.

In addition, therapeutic allegiance is another possible confound as the study was conducted by a centre specialized in MIT by clinicians with more than 20 years of expertise in treating PD. Replication from independent groups is underway, and there is still the need to assess treatment fidelity and quality.

These limitations notwithstanding, we propose that the results of this case series are promising in terms of the acceptability and effectiveness of MIT. If replicated in larger samples then we propose that MIT may indeed be an effective treatment for PD other than borderline. MIT may contribute to filling a gap in the field of PD treatment, as it is currently one of the few carefully manualized treatment for this under-investigated population. With replication, MIT constitiutes a significant new approach that clinicians can use to develop a richer repertoire of techniques to address the needs of this difficult-to-treat population.

References

Arnevik, E., Wilberg, T., Urnes, O., Johansen, M., Monsen, J. and Karterud, S. 2009. Psychotherapy for personality disorders: Short term day hospital psychotherapy versus outpatient individual therapy – A randomized controlled study. *European Psychiatry, 24*, 71–78.

Arntz, A., & Jacob, G. (2012). *Schema therapy in practice: an introductory guide to the schema mode approach*: Chichester, UK: Wiley.

American Psychiatric Association (2000). Diagnostic and Statistical Manual of Mental Disorders. Fourth edition. Text revision. DSM-IV-TR. Washington, DC: APA.

Bamelis, L.L.M., Renner, F., Heidkamp, D., & Arntz, A. (2011). Extended Schema mode conceptualizations for specific personality disorders: an empirical study. *Journal of Personality Disorders*, *25*, 41–58.

Bamelis, L.L.M., Evers, S.M.A.A., Spinhoven, P., & Arntz, A. (2014). Results of a Multicenter Randomized Controlled Trial of the Clinical Effectiveness of Schema Therapy for Personality Disorders. *American Journal of Psychiatry*, *171*, 305-322. doi:10.1176/appi.ajp.2013.12040518.

Bateman, A., & Fonagy, P. (2004). *Psychotherapy for Borderline Personality Disorder: Mentalization Based Treatment.* Oxford: Oxford University Press.

Bateman, A.W., & Fonagy, P. (2009). Randomly controlled trial of outpatient mentalizing-based therapy versus structured clinical management for borderline personality disorder. *American Journal of Psychiatry, 166*, 1355-1364.

Bateman, A., & Fonagy, P. (2013). Impact of clinical severity on outcomes of mentalisation-based treatment for borderline personality disorder. *British Journal of Psychiatry, 203*, 221-227. doi:10.1192/bjp.bp.112.121129

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Beck depression inventory-II. *San Antonio, TX: Psychological Corporation*, b9.

Benjamin, L. S. (2003). *Interpersonal reconstructive therapy.* New York: Guilford Press.

Budge, S. L., Moore, J. T., Del Re, A. C., Wampold, B. E., Baardseth, T. P., & Nienhaus, J. B. (2013). The effectiveness of evidence-based treatments for personality disorders when comparing treatment-as-usual and bona fide treatments. *Clinical Psychology Review*. doi: 10.1016/j.cpr.2013.08.003.

Carcione, A., Nicolò, G., Pedone, R., Popolo, R., Conti, L., Fiore, D., . . . Dimaggio, G. (2011). Metacognitive mastery dysfunctions in personality disorder psychotherapy. *Psychiatry Research, 190*, 60-71.

Clarkin, J.F., Yeomans, F.E., & Kernberg, O. (1999). *Psychotherapy for borderline personality disorder*. New York: Wiley.

Colli, A., Tanzilli, A., Dimaggio, G. & Lingiardi, V. (2014). Patient personality and therapist responses: An empirical investigation. *American Journal of Psychiatry, 171,* 102-108. doi: 10.1176/appi.ajp.2013.13020224

Crawford, J., Cayley, C., Lovibond, P. F., Wilson, P. H., & Hartley, C. (2011). Percentile Norms and Accompanying Interval Estimates from an Australian General Adult Population Sample for Self-Report Mood Scales (BAI, BDI, CRSD, CES-D, DASS, DASS-21, STAI-X, STAI-Y, SRDS, and SRAS). *Australian Psychologist, 46*, 3-14.

Derogatis, L. R. (1992). *SCL-90-R: Administration, Scoring of Procedures Manual-II for the R (evised) Version and Other Instruments of the Psychopathology Rating Scale Series*: Clinical Psychometric Research Incorporated.

Diedrich, A. & Voderholzer, U. (2015). Obsessive-compulsive personality disorder: A current review. *Current Psychiatry Reports*, *17*, 2. doi: 10.1007/s11920-014-0547-8

Dimaggio, G. (2014). Hitting the bull's eye in personality disorders psychotherapy. *Journal of Contemporary Psychotherapy, 44*(2), 65-70.

Dimaggio, G., & Attinà, G. (2012). Metacognitive interpersonal therapy for narcissistic personality disorder and associated perfectionism. *Journal of Clinical Psychology: In-Session, 68*(8), 922-934.

Dimaggio, G., Attinà, G., Popolo, R., & Salvatore, G. (2012). Personality disorders with over-regulation of emotions and poor self-reflectivity-The case of a man with avoidant and not-otherwise specified personality disorder and social phobia treated with Metacognitive Interpersonal Therapy. *Personality and Mental Health, 6*(2), 156-162. doi:10.1002/pmh.1193

Dimaggio, G., Carcione, A., Salvatore, G., Semerari, A., & Nicolò, G. (2010). A rational model for maximizing the effects of therapeutic relationship regulation in personality disorders with

poor metacognition and over-regulation of affects. *Psychology and Psychotherapy: Theory, Research and Practice, 83*(4), 363-384. doi:10.1348/147608310x485256Dimaggio, G., & Lysaker, P. H. (2010). *Metacognition and severe adult mental disorders: From research to treatment*: Routledge.

Dimaggio, G. & Lysaker, P.H. (2015). Metacognition and mentalizing in the psychotherapy of patients with psychosis and personality disorders. *Journal of Clinical Psychology: In-Session, 71*, 117-124. DOI: 10.1002/jclp.22147

Dimaggio, G., Salvatore, G., Fiore, D., Carcione, A., Nicolò, G. & Semerari, A. (2012). General principles for treating the overconstricted personality disorder. Toward operationalizing technique. *Journal of Personality Disorders, 26*, 63-83.

Dimaggio, G., Montano, A., Popolo, R., & Salvatore, G. (2015). *Metacognitive interpersonal therapy for personality disorders: a treatment manual*: Routledge.

Dimaggio, G., Nicolò, G., Semerari, A., & Carcione, A. (2013). Investigating the personality disorder psychotherapy process: The roles of symptoms, quality of affects, emotional dysregulation, interpersonal processes, and mentalizing. *Psychotherapy Research, 23*(6), 624-632.

Dimaggio, G., Procacci, M., Nicolò, G., Popolo, R., Semerari, A., Carcione, A., & Lysaker, P. H. (2007). Poor metacognition in Narcissistic and Avoidant Personality Disorders: four psychotherapy patients analysed using the Metacognition Assessment Scale. *Clinical Psychology & Psychotherapy, 14*(5), 386-401. doi:10.1002/cpp.541

Dimaggio, G., Valeri, S., Salvatore, G., Popolo, R., Montano, A., & Ottavi, P. (2014). Adopting metacognitive interpersonal therapy to treat Narcissistic Personality Disorder with somatization. *Journal of Contemporary Psychotherapy, 44*(2), 85-95.

First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. (1997). *User's guide for the Structured clinical interview for DSM-IV axis I disorders SCID-I: clinician version*: American Psychiatric Pub.

Fonagy, P. (1991). Thinking about thinking: Some clinical and theoretical considerations in the treatment of a borderline patient. *The International journal of psycho-analysis, 72*(4), 639.

Fonagy, P., & Bateman, A. W. (2016). Adversity, attachment, and mentalizing. *Comprehensive Psychiatry, 64*, 59-66. *http://dx.doi.org/10.1016/j.comppsych.2015.11.006*.

Gask, L., Evans, M. & Kessler, D. (2013). Personality disorder. *BMJ*, 347:f5276

Giromini, L., Velotti, P., de Campora, G., Bonalume, L., & Cesare Zavattini, G. (2012). Cultural adaptation of the difficulties in emotion regulation scale: Reliability and validity of an Italian version. *J Clin Psychol, 68*(9), 989-1007.

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of psychopathology and behavioral assessment, 26*(1), 41-54.

Holi, M. M., Marttunen, M., & Aalberg, V. (2003). Comparison of the GHQ-36, the GHQ-12 and the SCL-90 as psychiatric screening instruments in the Finnish population. *Nordic journal of psychiatry*, *57*(3), 233-238.

Horowitz, L., Alden, L., Wiggins, J., & Pincus, A. (2000). Inventory of interpersonal problems (IIP-32/IIP-64). *London: Psychological Corporation*.

Jacobson, N. S., & Truax, P. (1991). Clinical significance: a statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, *59*(1), 12. Kramer, A., Pascual-Leone, A., Rohde, K.B. & Sachse, R. (2016). Emotional Processing, Interaction Process, and Outcome in Clarification-Oriented Psychotherapy for Personality Disorders: A Process-Outcome Analysis. *Journal of Personality Disorders*, *30*, 373-394.

Kopta, S.M., Howard, K.I., Lowry, J.L. & Beutler, L. (1994). Patterns of symptomatic recovery in psychotherapy. *Journal of Consulting & Clinical Psychology*, *62*, 1009-1016.

Livesley, J.W., Dimaggio, G. & Clarkin, J.F. (Eds.) (2016). Integrated treatment for personality disorders: A modular approach. New York: Guilford.

Lo Coco, G., Gullo, S., Scrima, F., & Bruno, V. (2012). Obesity and interpersonal problems: an analysis with the interpersonal circumplex. *Clinical psychology & psychotherapy, 19*(5), 390-398.

Lobbestael, J., van Vreeswijk, M. F., & Arntz, A. (2008). An empirical test of schema mode conceptualizations in personality disorders. *Behaviour Research and Therapy, 46*, 854–860.

Lobbestael, J., Leurgans, M., & Arntz, A. (2011). Inter-rater reliability of the Structured Clinical Interview for DSM-IV Axis I disorders (SCID I) and Axis II disorders (SCID II). *Clinical Psychology & Psychotherapy*, *18*, 75-79.

Luborsky, L., & Crits-Christoph, P. (1998). *Understanding transference: The Core Conflictual Relationship Theme method*: American Psychological Association.

Lysaker, P. H., Olesek, K., Buck, K., Leonhardt, B. L., Vohs, J., Ringer, J., . . . Outcalt, J. (2014). Metacognitive mastery moderates the relationship of alexithymia with cluster C personality disorder traits in adults with substance use disorders. *Addictive Behaviors, 39*(3), 558-561.

Lynch, T. R., & Cheavens, Jennifer S. (2008). Dialectical behavior therapy for comorbid personality disorders. *Journal of Clinical Psychology, 64*(2), 154-167. doi: 10.1002/jclp.20449

Lynch, T.R., Hempel, R.J. & Clark, L.A. (2016). Promoting Radical Openness and Flexible-Control. In W.J. Livesley, G. Dimaggio & J.F. Clarkin (Eds.) *Integrated treatment for personality disorders: A modular approach.* New York: Guilford

Maples, J.L., Miller, J., Wilson, L.F., Seibert, L.A., Few, L.R., Zeichner, (2010). Narcissistic personality disorder and self-esteem: An examination of differential relations with self-report and laboratory-based aggression. *Journal of Research in Personality, 44*, 559-563. doi:10.1016/j.jrp.2010.05.012

McMain, S.F., Links, P.S., Gnam, W.H., Guimond, T., Cardish, R.J., Korman, L., Streiner, D. L. (2009). A randomized trial of dialectical behavior therapy versus general psychiatric management for borderline personality disorder. *American Journal of Psychiatry, 166,* 1365-1374.

Morley, S., & Dowzer, C. (2014). Manual for the Leeds Reliable Change Indicator: simple Excel (tm) applications for the analysis of individual patient and group data. *Leeds, UK: University of Leeds.[Links]*.

Muran , J. Safran , J. Samstag , L. Winston , A. (2005). Evaluating an alliance-focused treatment for personality disorders. *Psychotherapy: Theory, Research, Practice, Training, 42,* 532-545.

Ronningstam & Weinberg, (2013). Narcissistic personality disorder: Progress in recognition and treatment. *Focus, 11,* 167-177.

Semerari, A., Carcione, A., Dimaggio, G., Falcone, M., Nicolo, G., Procacci, M., & Alleva, G. (2003). How to evaluate metacognitive functioning in psychotherapy? The metacognition assessment scale and its applications. *Clinical psychology & psychotherapy, 10,* 238-261. Semerari, A., Carcione, A, Dimaggio, G., Nicolò, G. & Procacci, M. (2007) Understanding minds, different functions and different disorders? The contribution of psychotherapeutic research. *Psychotherapy Research, 17,* 106-119.

Semerari, A., Colle, L., Pellecchia, G., Buccione, I., Carcione, A., Dimaggio, G., . . . Pedone, R. (2014). Metacognitive dysfunctions in personality disorders: correlations with disorder severity and personality styles. *Journal of personality disorders, 28,* 751-766.

Soldz, S., Budman, S., Demby, A., & Merry, J. (1995). A short form of the inventory of interpersonal problems circumples scales. *Assessment, 2,* 53-63.

Spielberger, C., Gorsuch, R. L., & Lushene, R. V. GA (1983). Manual for the state-trait anxiety inventory. Palo Alto: CA: Consulting Psychologists Press.

Spielberger, C. D. (1989). *State-trait anxiety inventory: a comprehensive bibliography*: Consulting Psychologists Press.

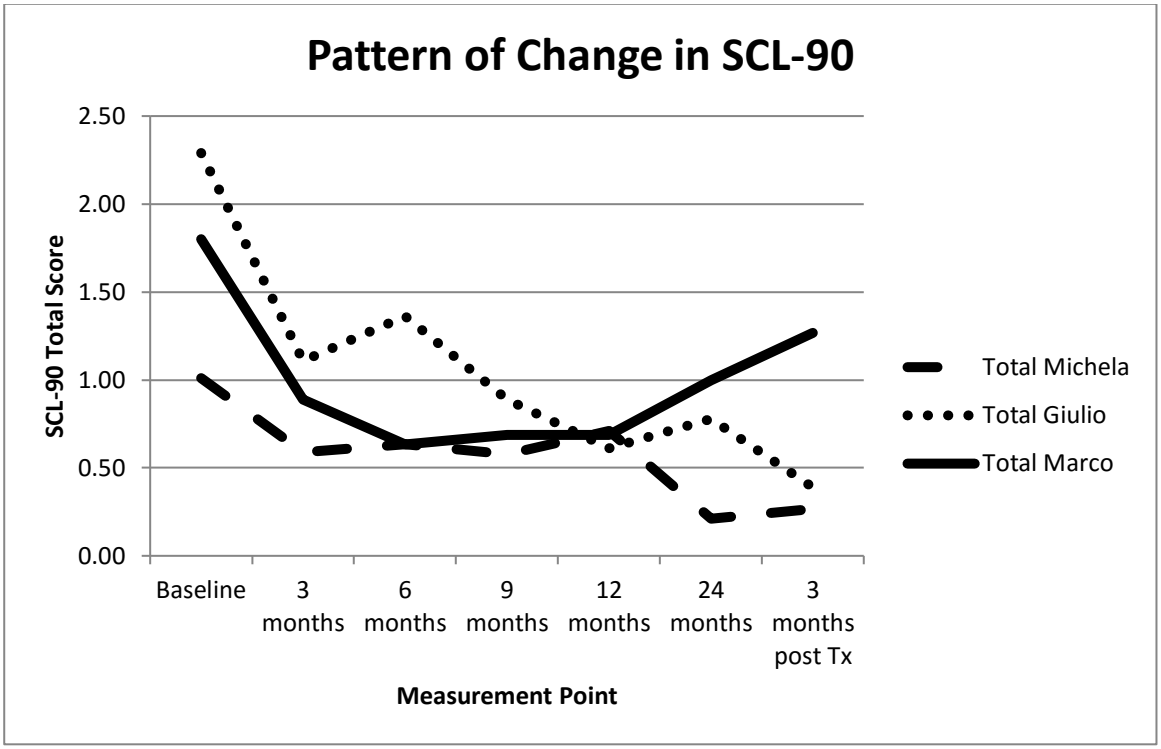
Yang, M., Coid, J. & Tyrer (2010). Personality pathology recorded by severity: national survey. *British Journal of Psychiatry*, *197*, 193-199

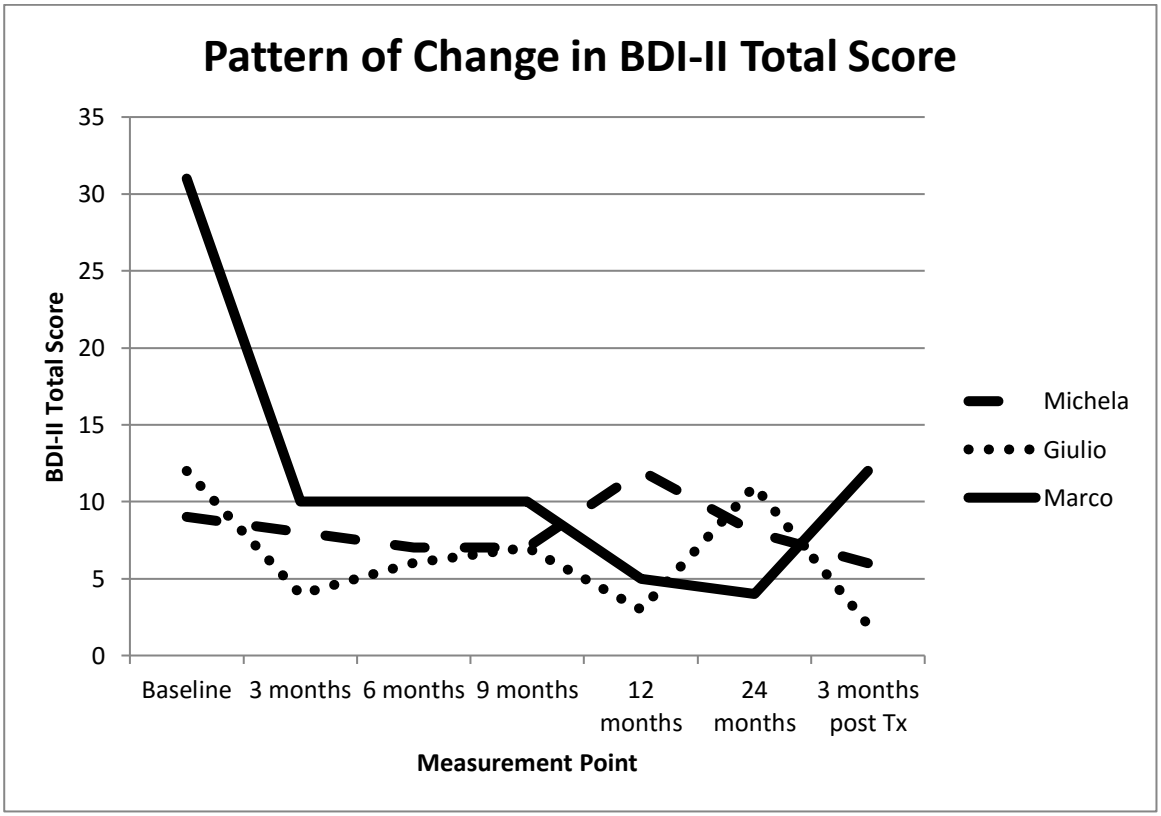
Table 1: Change in symptoms and functioning across therapy

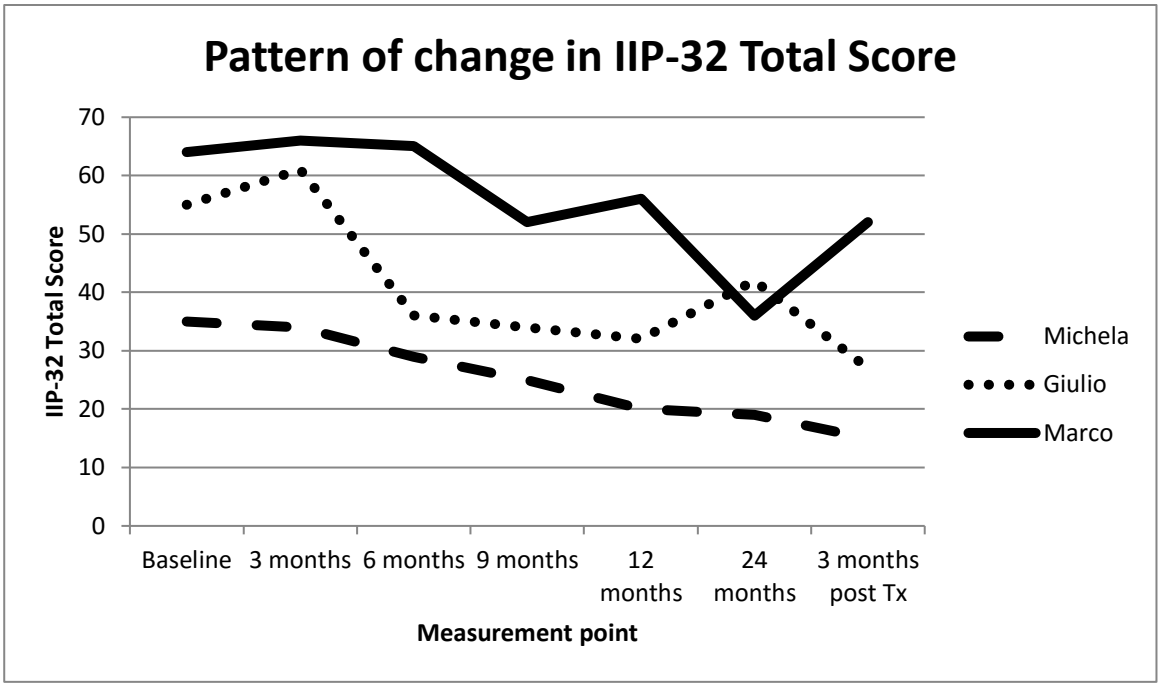
	Personality Disorder (SCID-II)		Distress (SCL-90 GSI)			Depression (BDI-II)			Anxiety (STAI-Y)			Interpersonal Problems (IIP-32)			Emotion Regulation (DERS)		
	B'line	**24 - mths**	**B'line**	**24 - mths**	**3- mths Post Tx**	**B'line**	**24 - mths**	**3- mths Post Tx**	**B'line**	**24 - mths**	**3- mths Post Tx**	**B'line**	**24 - mths**	**3- mths Post Tx**	**B'line**	**24 - mths**	**3- mths Post Tx**
Michela	16	4	1.01	0.21	0.28	9	8	6	42	46	43	35	19	15	87	73	73
Giulio	23	4	2.29	0.78	0.39	12	11	2	56	42	31	55	42	27	110	76	62
Marco	23	10	1.80	1.00	1.27	31	4	12	67	58	55	64	36	52	122	97	106

Notes: B'line = Baseline; 24-mths = 24-months into treatment; 3-mths Post Tx = 3 months post Treatment; SCID-II = Structured Clinical Interview for DSM-IV Axis II Disorders, SCL-90 = Symptom Checklist Revised; BDI – II = Beck Depression Inventory II; STAI-Y = State Trait Anxiety Inventory – Y version; IIP-32 = Inventory of Interpersonal Problems 32 item version, DERS = Difficulties in Emotion Regulation Scale

Figure 1: Graphical representation of change in key variables over time.






Pattern of change in IIP-32 Total Score
IIP-32 Total Score
70
60
50
40
30
20
10
0
Baseline
3 months
6 months
9 months
12 months
24 months
3 months post Tx
Measurement point
Michela
Giulio
Marco